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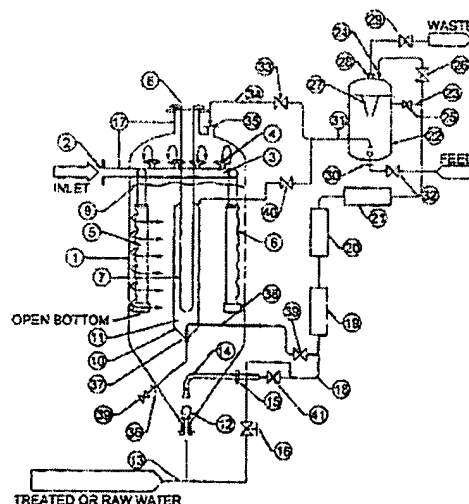
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- (74) Agent: GILES, Ashley, Simon; Haseltine Lake, Imperial House, 15-19 Kingsway, London WC2B 6UD (GB).
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- (71) Applicant (for all designated States except US): DYNAMIC PROCESSING SOLUTIONS PLC [GB/GB]; Dynamic House, 8-10 Combe Road, Portishead, Bristol BS20 6BJ (GB).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): PARKINSON, David, John [GB/GB]; Arodene, Walton-in-Gordano, Clevedon, North Somerset BS21 7AR (GB).
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[Continued on next page]

(54) Title: FILTRATION APPARATUS



(57) Abstract: A radial or crossflow media filter comprising a housing such as a vessel or tank (1), the housing containing filter media (9), a contaminated flow inlet (2) and a discharge outlet (8), the inlet comprising a manifold (5) situated within the housing, the manifold (5) having flow outlets (6) which are directed laterally, away from the discharge outlet (8). The flow inlet may comprise a substantially vertically aligned elongate tubular manifold (5) with a plurality of flow distribution holes or slots disposed along its length. Furthermore, the discharge outlet (8) may be accessed through a chamber within the housing which contains a second filter media (11) which is of larger average particle size than the first filter media (9).

# INTERNATIONAL SEARCH REPORT

Internat Application No  
PCT/GB2004/001351

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC 7 B01D24/02 B01D24/04 B01D24/30 B01D24/36 B01D24/38 B01D24/40 B01D24/46				
According to International Patent Classification (IPC) or to both national classification and IPC				
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) IPC 7 B01D				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched				
Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, PAJ, WPI Data				
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>				
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
X	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 04, 2 April 2003 (2003-04-02) & JP 2002 361009 A (MAEZAWA IND INC), 17 December 2002 (2002-12-17) abstract	1,3,4, 10,12		
X	DE 100 47 530 A (EGNER UMWELTTECH GMBH) 11 April 2002 (2002-04-11) abstract; figure 1	1,3,4,10		
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X	US 4 197 201 A (HJELMNER ULF R ET AL) 8 April 1980 (1980-04-08) abstract; figure 1	1,3,4,10		
-/-				
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.				
<input checked="" type="checkbox"/> Patent family members are listed in annex.				
<b>* Special categories of cited documents :</b> <table border="0"> <tr> <td style="vertical-align: top;">           "A" document defining the general state of the art which is not considered to be of particular relevance            "E" earlier document but published on or after the International filing date            "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)            "O" document referring to an oral disclosure, use, exhibition or other means            "P" document published prior to the International filing date but later than the priority date claimed         </td> <td style="vertical-align: top;">           "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention            "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone            "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art            "A" document member of the same patent family         </td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the International filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the International filing date but later than the priority date claimed	"T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "A" document member of the same patent family
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Date of the actual completion of the international search 6 July 2004		Date of mailing of the International search report 12.07.04		
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		Authorized officer Hoffmann, A		

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# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>P84699PC00/ASG</b>	<b>FOR FURTHER ACTION</b> <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>	
International application No. <b>PCT/GB2004/001351</b>	International filing date (day/month/year) <b>31/03/2004</b>	(Earliest) Priority Date (day/month/year) <b>10/04/2003</b>
Applicant  <b>DYNAMIC PROCESSING SOLUTIONS PLC</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (See Box II).

3. ☐ Unity of invention is lacking (see Box III).

4. With regard to the title,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the drawings,

a. the figure of the drawings to be published with the abstract is Figure No. 3

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

# IN. .RNATIONAL SEARCH REPORT

International Application No

PCT/GB2004/001351

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B01D24/02 B01D24/04 B01D24/30 B01D24/36 B01D24/38  
B01D24/40 B01D24/46 B01D23/10 B01D23/20 B01D23/24

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	US 4 197 201 A (HJELMNER ULF R ET AL) 8 April 1980 (1980-04-08) abstract; figure 1	1,3,4,10
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☒ Further documents are listed in the continuation of box C.

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- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
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- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*Z\* document member of the same patent family

Date of the actual completion of the international search

16 June 2004

Date of mailing of the international search report

28/06/2004

Name and mailing address of the ISA

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Fax: (+31-70) 340-3016

Authorized officer

Hoffmann, A

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/GB2004/001351

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 590 705 A (ASTRACO BEHEER BV) 6 April 1994 (1994-04-06) abstract; figure 1 -----	1,3,4,10
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